

invention is implemented could download clip-art pictures from a  
clip-art picture message server (operated by one or another  
party who would typically accrue some advantage for making  
available clip-art pictures for downloading, a party such as for  
5 example a filmmaker offering clip-art pictures indicating a  
movie recently released by the filmmaker).

Referring now to Fig. 2, an example of a gallery according  
to the invention is shown as including eight clip-art pictures  
displayed by the clip-art picture manager 10 (Fig. 1) (i.e. more  
10 specifically by the clip-art picture editor and by the gallery  
selector) in a 4x2 table and maintained in the format of a  
single 72x28 GMS picture.

Referring now again to Fig. 1, in the preferred embodiment,  
galleries are stored according to the invention in a gallery  
15 folder 14 (in a memory device of the user equipment) using an  
index 16 maintained by the clip-art picture manager; from the  
gallery folder, a gallery (i.e. two or more clip-art pictures,  
not an individual clip-art picture) can be viewed, sent as a  
message or part of a message (along with text), and edited.  
Received galleries can be saved in the folder. (Also, as is  
20 disclosed below, a single clip-art picture, or only some of the  
clip-art pictures in a gallery, can be selected from a gallery  
and communicated in an in-line graphics message. If it is  
desired to communicate only the selected clip-art pictures, and  
25 not also text, the user simply composes the "in-line graphics  
message" without text.)

Referring now also to Fig. 3, when the clip-art picture  
manager displays a gallery (i.e. a single GMS picture), the  
gallery is preferably displayed as eight cells in a 4x2 table,  
30 each cell holding a single clip-art picture. One gallery is  
displayed at a time, after having been selected using the index

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to the galleries in the picture folder. In the preferred embodiment, the clip-art picture manager displays one gallery at a time, and by using the NEXT\_KEY and PREV\_KEY, a user can select one or another of the eight clip-art pictures in a gallery (for editing or insertion in an in-line graphics message or for deletion or overwriting with another clip-art picture). (The term *use* is displayed to indicate that the highlighted clip-art picture has been selected.) Also in the preferred embodiment, the currently selected clip-art picture 21a is shown as a negative image (light areas appear as dark, and dark areas appear as light areas). When the currently selected clip-art picture is the last one in the gallery being displayed and the clip-art picture manager is in a browse mode (as opposed to an edit mode), pressing the NEXT key causes the clip-art picture manager to open the next gallery occurring in the index, thus allowing a user to scroll through different galleries without returning to the index.

Besides relying on a predefined format for arranging clip-art pictures in a gallery as in Figs. 2 and 3 (showing one gallery having eight clip-art pictures in a 4x2 arrangement), the clip-art picture manager can recognize which pixels of a gallery belong to which picture based on one or another set of rules, such as that the set of all darkened pixels in which within every darkened pixel is within three pixels of at least one other darkened pixel constitutes one clip-art picture in a gallery. As another example, all darkened pixels defining a closed boundary (in that they are within some pre-determined number of pixels of each other and their interconnection defines a closed curve) and all pixels enclosed within the boundary are included in the same clip-art picture. Thus, it is not necessary that a clip-art picture be a predetermined size, and a

gallery may therefore contain more or less than eight clip-art pictures.

When a user equipment receives a gallery, according to one implementation of the invention the user equipment will respond to the gallery as it would to a GMS picture, and when the user equipment displays the received object, the user will recognize that the object is a gallery according to the invention, not a GMS picture; the user can then store the gallery in the user equipment and then enter full browse mode (allowing the user to scroll from the received gallery to other already stored galleries).

In another embodiment, instead of relying on the user to recognize that the received object is a gallery (as opposed to a GMS picture), the user equipment would automatically recognize the received object as a gallery. Automatic recognition can be performed as laid out for example in the co-pending and co-owned application having Ser. No. 09/864,855, entitled *System and Protocol for Extending Functionality of Wireless Communication Messaging*, filed May 23, 2001 (and already incorporated by reference).

In yet another embodiment of the gallery recognition aspect of the invention, the so-called smart messaging format can be used. (See *Smart Messaging Specification*, Revision 3.0, Dec. 13, 2000, Nokia Mobile Phones Ltd.)

In such an embodiment, a mobile phone would include a module (typically a software module) that would detect a gallery based on a pre-defined format that distinguishes a gallery from a GMS picture. (A small additional information element would be added to a gallery originally provided in GMS picture format, and that small additional information element would signal to the